

# SONY®

High Definition Video System

Digital **HDVS**®

**HDCAM**™



Sony HD Digital Video Cassette Player  
**Compact Player J-H1/J-H3**



## HDCAM™ playback on your desk

With the widespread use of HDCAM camcorders and studio VTRs in the high-definition field and post production, it was inevitable that producers, journalists and others involved in the program production chain would be demanding cost-effective HDCAM viewers that can readily be used in production environments.

Sony provides the solution by introducing J-H Series Compact Players in two models - the J-H1 and the J-H3.

Sharing the same design philosophy and physical dimensions of the existing J Series standard-definition compact players, both the J-H1 and J-H3 are affordable, compact, lightweight and offer the same low-power-consumption characteristics.

While the J-H1 is ideal for broadcast use and provides HDCAM playback at 59.94i, 50i, 25P, and 29.97P, the J-H3 is equipped with a number of additional features to support 24P production, and to complement the CineAlta series of VTRs.



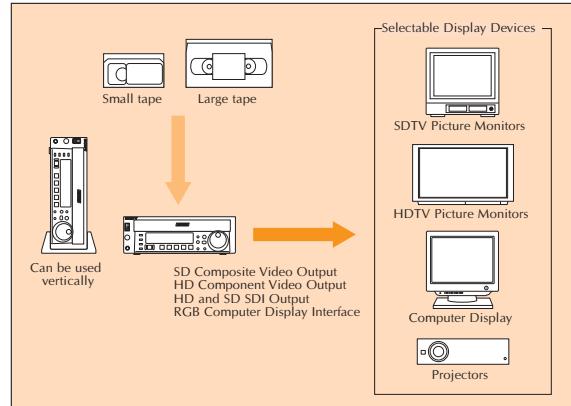


•Actual size

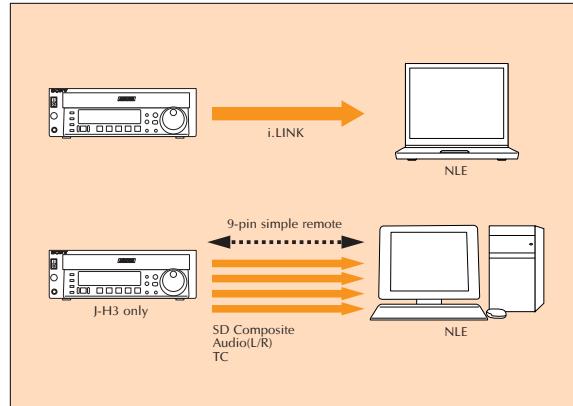


## System Configurations

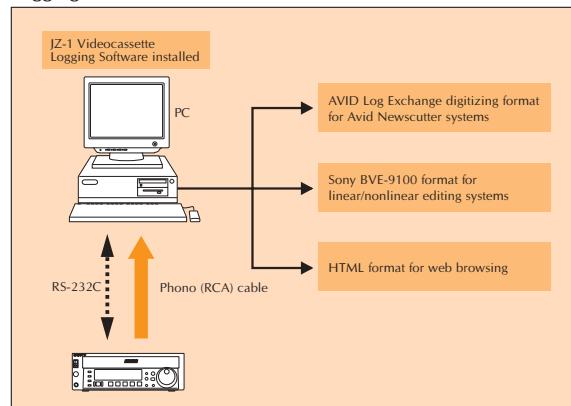
### Viewing with the Versatile Output Capability



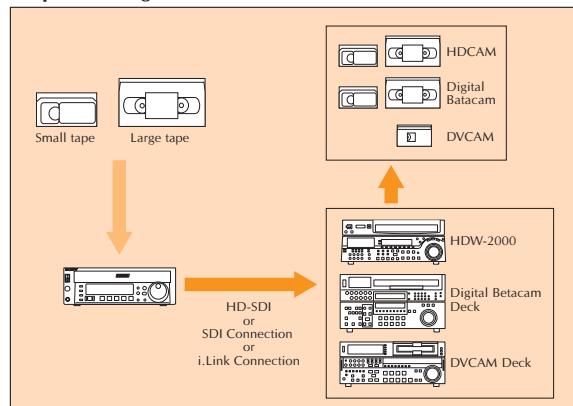
### Source Feeding to NLE



### Logging



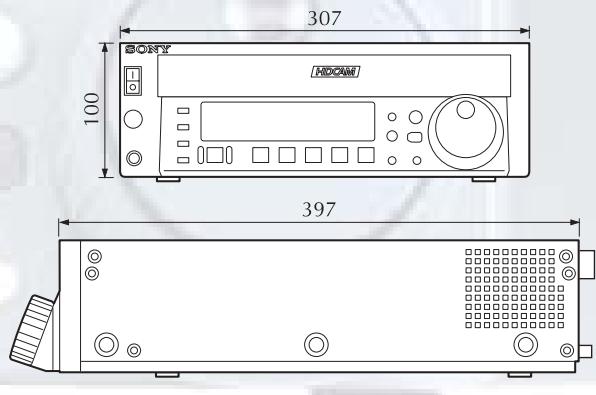
### Simple Dubbing



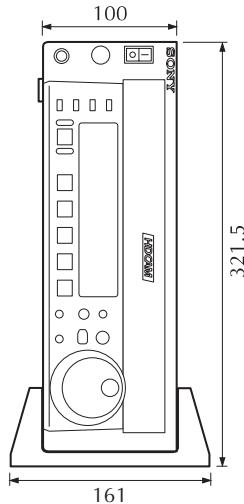
## Compact Body Design

Sharing the same chassis design of the existing J Series multi-format compact players for standard-definition formats, both the J-H1 and J-H3 retain a compact and lightweight design. Equivalent in size to a standard desktop PC, they can be effortlessly placed on the desks of busy producers, journalists and editors.

The J-H1 and J-H3 players are just 307 x 100 x 397 mm



(12 1/8 x 4 x 15 3/4 inches) in size and weigh only 7.5 kg (16 lb 9 oz). They can be used horizontally or placed upright with the supplied vertical stand, allowing operators to locate players as desired even in space-constrained or awkward environments.



## Replay of Both Small and Large Cassettes

Despite their very compact designs, the J-H1 and J-H3 can playback both large and small size cassettes.



## HDCAM™ Playback Capability

Both the J-H1 and J-H3 have the capability to playback HDCAM cassettes that are recorded in 1080/59.94i, 50i and 1080/29.97P, 25P formats - primarily used in High Definition television production applications. The J-H3 has the additional capability to playback 1080/23.98, 24P formats to address the movie making industry, and high-end television and commercial productions.

## Flexible Audio Outputs

Both the J-H1 and J-H3 provide two channels of analog audio output, available either from the XLR connectors or RCA pin jacks located on the rear panel. A headphone jack is also provided on the front panel. The audio channels to be output to the analog outputs and headphone jack can be selected from Ch 1/2, Ch 3/4, and Cue track. Audio is automatically muted for off-speed playback and non-data playback.



## Additional Features of J-H3 - Extending Applications in Post Production

In addition to their common playback capability of 1080 progressive formats, HD-SDI and SD-SDI outputs, the J-H3 offers the following features.

- Reference input (HD/SD switchable)
- RS-422A
- Time code output
- Pull down function to convert 23.98P to 1080/59.94 and 525/59.94i



J-H3 Rear Panel

## Versatile Output Capability — For Cost-Effective and Flexible Monitoring

### **HD and SDI Outputs**

#### **— For Connection to High Grade Monitors**

The J-H1 and J-H3 both come equipped with a analog Y/Pb/Pr component output (BNC x 3) for connection to an HD picture monitor. The J-H3 additionally offers HD-SDI and SD-SDI outputs giving a choice of high quality monitoring and work-tape copying. (AES/EBU audio and non audio data are embedded in these digital outputs.)

### **Down conversion capability built-in**

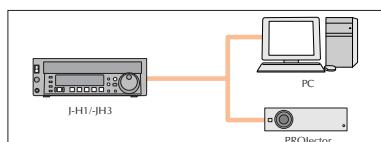
#### **— Connectivity with SDTV Monitors**

Both the J-H1 and J-H3 have a built-in down conversion capability, offering NTSC or PAL composite video output from the BNC and RCA output connectors. With this capability, HDCAM-originated content can be viewed on both SDTV professional and consumer monitors.

### **RGB Computer Display Interface**

#### **— For Connection to Computer Displays**

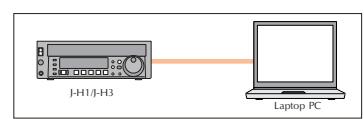
Equipped with an RGB computer display interface, both the J-H1 and J-H3 can output HDCAM-originated content to a computer display, at XGA resolution. (As the pixel count of an XGA display is 1024 x 768, the HDCAM image will be "letter-boxed" to 1024 x 577 pixels in the center.) Alternatively, when large screen viewing is preferred, the player can be connected to an XGA capable data projector.



### **i.LINK\* Interface**

#### **— 'Single-Cable' Transmission of Video, Audio, and Time Code**

When equipped with the optional HKJ-101 i.LINK interface board, both the J-H1 and J-H3 can down-convert the HDCAM signal to a DV signal, in which video, audio and time code are transferred through a single i.LINK interface cable. This DV-output capability allows the J-H1 or J-H3 to be connected to a DVCAM deck for straight dubbing of HDCAM material to DVCAM tape\*\*. It also allows a direct connection to DV-based nonlinear editors.



\*i.LINK is a trademark of Sony used only to designate that a product contains an IEEE1394 connection. The i.LINK connection may vary depending on the software applications, operating system and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Please refer to the documentation that comes with any device having an i.LINK connection for information on compatibility, operating conditions and proper connection.

\*\*Assemble or Insert editing functions can not be used.

### **Tape Logging System with JZ-1 Software**

Combined use of the J-H1 or J-H3 with the JZ-1 Videocassette Logging Software creates a easy-to-use tape logging system. This is achieved by connecting the J-H1 or J-H3 to a PC\* running JZ-1 software via an RS-232C cable. The JZ-1 software provides an easy-to-use GUI to create log data of edit in/out points and to add simple comments to each logged scene. In addition, a storyboard function is available into a basic EDL for edit data export.

\*An appropriate video capture card must be installed in the PC.

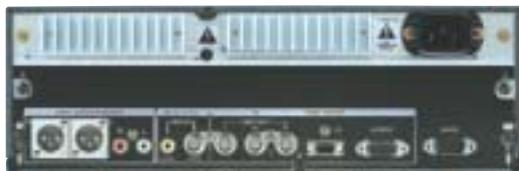
### **Tele-File™ System**

Another important option to increase editing efficiency is the Sony Tele-File system, a non-contact read/write system for storing production-related data on an I/C momory embedded in a 1/2-inch cassette label. Connecting a PC running JZ-1 Videocassette logging Software to the J-H1 and J-H3 allows information to be read and written to a Tele-File label (option: MLB-1M-100) via GUI-based operations.

## J-H1/J-H3 Specifications

		J-H1	J-H3
General	Power requirements	AC 100 V to 240 V 50/60 Hz	
	Power consumption	50 W	60 W
	Operating temperature	+5 °C to +40 °C (+41 °F to +104 °F)	
	Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
	Humidity	25 % to 80 % (relative humidity)	
	Mass	7.5 kg (16 lb 9 oz)	
	Dimensions (W x H x D)	307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches)	
	Tape speed   HDCAM	96.7 mm/s (29.97 Hz), 80.7 mm/s (25 Hz)	96.7 mm/s (29.97 Hz), 80.7 mm/s (25 Hz), 77.4 mm/s (24 Hz)
	Playback time	124 min (29.97 Hz, with BCT-124HDL) 149 min (25 Hz, with BCT-124HDL)	124 min (29.97 Hz, with BCT-124HDL) 149 min (25 Hz, with BCT-124HDL) 155 min (24 Hz, with BCT-124HDL)
	Fast forward / Rewind time	Approx. 6 min with BCT-124HD	
	Search speed   Shuttle mode	Still to ±21 times normal speed playback	
	Jog mode	Still to ±1 time normal speed playback	
	Servo lock time	1 sec or less (from standby on)	
	Load/unload time	7 sec or less	—
Input/Output	Digital HD video	—	BNC x 1, SMPTE-292M
	Digital SD Video	—	BNC x 1, SMPTE-259M
	Analog HD video	BNC (x 3) Y: 0.7 Vp-p, Pb/Pr: +/-0.7Vp-p 75 Ω EIAJ RC-5237 connector, EIAJ CP-4120 standard	
	Analog SD video	BNC (x 1), Pin jack (x 1), 1.0 Vp-p, 75 Ω	
	Computer display	D-sub 15 pin, XGA (1024 x 768 dots), RGB, 0.7 V	
	i.LINK (Optional)	IEEE1394	
	Timecode	—	BNC x 1, SMPTE 12M
	Audio monitoring	Pin jack (x 2): -10 dBu at 47 kΩ load, unbalanced XLR (male x 2) +4 dBm, 600 Ω load, low impedance, balanced	
	Headphone	JM-60 stereo phone jack, -6 to -12 dBu at 8 Ω, unbalanced	
	RS-232C	D-sub 9 pin male (x 1)	
	RS-422	—	D-sub 9 pin female (x 1), Sony 9-pin remote interface
	Wireless remote	BIRCS	
	EXT SYNC	—	BNC x 2
HD analog response	Output level	Y: 700 mV (±5 %), Pb/Pr: 700 mV (±5 %), Sync signal: 300 mV (±5 %)	
	Bandwidth	Y: 0 to 20 MHz +1.0 dB / -3.0 dB, Pb/Pr: 0 to 7 MHz +1.0 dB / -3.0 dB	
	S/N ratio	56 dB or more	
	Output impedance	Y, Pb, Pr: 75 Ω (±5 %)	
XGA analog response	Y/C Delay	Y, Pb, Pr: ±15 nsec or less	
	Output level	R: 700 mV (±5 %), G: 700 mV (±5 %), B: 700 mV (±5 %)	
	Resolution	XGA	
	Refresh/rate	60 Hz	
SD composite response	H-Frequency	48.4 kHz	
	Output level	Y: 59.94i: 714 mV (±5 %), 50i: 700 mV (±5 %) Sync: 59.94i: 286 mV (±5 %), 50i: 300 mV (±5 %) Burst: 59.94i: 286 mV (±5 %), 50i: 300 mV (±5 %)	
	Bandwidth	0.5 to 5.75 MHz + 0.5 dB/-3.0 dB	
	S/N ratio	56 dB or more	
Analog audio response	Y/C delay	20 nsec or less	
	K Factor (2T Pulse)	1.0 % or less	
	Output level	XLR: +4±0.5 dBm, -20 dBFS, 600 Ω terminated PIN: +10±0.5 dBu, -20 dBFS, 47 kΩ terminated	
	Frequency response	20 Hz to 20 kHz + 1.0 dB/-1.5 dB	
Cue audio response	Dynamic range	More than 85 dB (at 1 kHz, emphasis ON)	
	Distortion	Less than 0.1 % (at 1 kHz/-20 dBFS, emphasis ON)	
	Wow & flutter	Below measurable level	
	Sampling frequency	100 Hz to 10 kHz ±3.0 dB	
	S/N ratio	More than 43.5 dB (3 % distortion level)	
	Distortion	Less than 2 % (T.H.D. at 1kHz, reference level)	
	Wow & flutter	Less than 0.18 %	
	Supplied accessories	Operation manual (CD-ROM), Quick operation guide, Vertical stand (x 2), Infra-red remote controller	

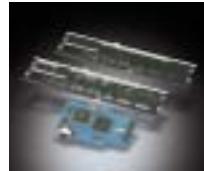
## Rear Panel



J-H1



J-H3



HKJ-101  
i.LINK interface board  
(option)

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24P, 23.98P, 29.97P and 25P are used as generic names in this literature for industry standard 24PsF, 23.98PsF, 29.97PsF and 25PsF.

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